REMARKS

Applicants acknowledge that the outstanding Office Action dated January 7, 2009 has been made final. Accordingly, a Request for Continued Examination has been submitted concurrently herewith, and further consideration of this application in light of the foregoing amendments, and the remarks set forth hereinbelow, is respectfully requested.

In response to the objection to Claim 1 at line 13, the word "it" has been changed to "said dog-leg portion", as suggested by the Examiner in item 3 on page 2 of the Office Action.

Claims 10 and 17-18 have been rejected under 35 U.S.C. §112, second paragraph for allegedly failing to particularly point out and distinctly claim the invention, based on certain formal issues identified on pages 3 and 4 of the Office Action. In response to these grounds of rejection, Applicants have amended the claims in a manner which addresses and is believed to resolve each of the cited formal issues. In particular, Claim 10 has been amended to recite that the antenna has a diameter of approximately 3.5 metres, and also that the support arm is configured to be sufficiently long to carry the 3.5 metre antenna reflector. In addition, Claim 11 has been amended to recite that the brackets "are sufficiently flexible to accommodate changes in the material properties of the boom in response to temperature variations". This feature of the invention is discussed, for example, at page 4, lines 25-29 and page 8, line 28 through page 9,

line 5. Applicants respectfully submit that a person skilled in the art would understand that temperature changes within the cited range of +140°C through -180°C would cause changes in size, which are accommodated by the claimed flexibility of the brackets. Accordingly, Claim 11 is believed to be clear and definite.

Finally, Claim 17 has been rewritten in independent form, to define a spacecraft having an antenna reflector supported on a boom. Thus, the issues referred to in items a), b) and c) on pages 3 and 4 of the Office Action have been obviated, and Claim 17 is believed to be clear and definite.

Claims 1, 5, 6, 12-14, 17, 18, 20, 21, 26 and 27 have been rejected under 35 U.S.C. §102(b) as anticipated by Baghdasarian et al (U.S. Patent No. 6,424,314), while Claim 10 has been rejected under 35 U.S.C. §103(a) as unpatentable over Baghdasarian et al. In addition, Claim 11 has been rejected as unpatentable over Baghdasarian et al in view of Baghdasarian et al (U.S. Patent No. 5,673,459). However, for the reasons set forth hereinafter, Applicants respectfully submits that all claims which remain of record in this application distinguish over the cited references, whether considered separately or in combination.

Claim 1 has been amended to recite, among other things, that the support arm has at least three hinged joints, and that a dog-leg portion of the support arm is situated between two of the hinged joints. This feature of the invention,

which is also recited in Claim 17, is discussed in the specification, for example, at page 7, lines 21-26, and can be clearly seen in Figure 1, in which the three joints are designated by reference numerals 10, 11 and 12. Moreover, as can be seen in both Figures 1 and 2, the dog-leg portion 17 of the articulated boom lies between the hinged joints 10 and 11.

In Baghdasarian et al '314 (hereinafter referred to simply as Baghdasarian et al), as can be seen, for example, in Figures 3 and 4, each of the booms 18 and 19 has only two joints. For example, the boom 18 has a joint 23 which connects it to a body of the spacecraft and a second joint at an opposite end thereof, which connects it to the reflector 10. (In Figures 5 and 6, the joints bear the reference numerals 30 and 31.) Thus, the boom in Baghdasarian et al does not include a third hinged joint, nor does it include a dog-leg which is disposed between two of three such hinged joints as recited in Claim 1 as amended.

In addition, the joints 30 and 31 in Baghdasarian et al are not "hinged joints", as recited in Claim 1. (This feature of the invention is discussed in the specification at page 2, lines 22-27; page 4, lines 24-29 and page 7, lines 27-30.) Rather, the disclosure in Baghdasarian et al makes it clear that the joints 30 and 31 each provide for "rotary motion about two orthogonal axis". (See, for example, Column 2, lines 17-19; Column 3, lines 24-27; and Figure 5, which is discussed in the specification at Column 3, lines 28-43.) The latter difference is significant in

that, in Baghdasarian et al, with swivel joints located only at each end of the support arm 18, it would not be possible to maneuver the reflector 10 in the manner illustrated in Figures 3-5 or Figures 6a-6e if the joints 30 and 31 were hinged joints. Thus, the Baghdasarian et al apparatus accomplishes a result similar to that of the present invention, by providing a more complicated joint structure for the two joints, while the present invention utilizes simpler hinged joints, to achieve movement of the reflector, as illustrated, for example, in Figure 1.

Finally, in Baghdasarian et al, it is apparent that the dog-leg in the boom 18 is provided in order to allow the boom 18 to project outwardly and over the reflector 10, as can been seen, for example, in Figure 3. That is, the joint 23 is set back inside the spacecraft, and the boom extends not only upwardly, but outwardly (toward the right in Figure 3) so that the boom can connect between the inwardly disposed joint 23 and the joint on the outward surface of the reflector 10.

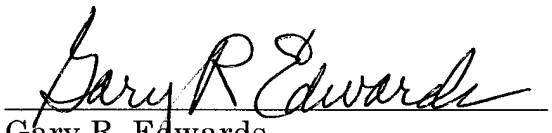
Newly submitted Claim 28, further distinguishes over the structure in Baghdasarian et al, reciting that, in the stowed position of the antenna reflector, the dog-leg portion "is disposed in a plane adjacent one side of said antenna reflector", and extends in said plane "at least partially along the circumference of the antenna reflector". That is, as can be seen in Figure 1 of the present application, the mount 18 extends sufficiently outwardly that the dog-leg portion

of the support arm lies in a plane that is adjacent to the backside of the reflector 16. The latter feature of the invention, which is also included in Claim 26, is not found or suggested in Baghdasarian et al, as can be seen, for example, in Figure 3.

In light of the foregoing remarks, this application should be in consideration for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket # 101806.56312US).

Respectfully submitted,



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